

Notice of Allowability

Application No.

10/828,534

Applicant(s)

GENNETT ET AL

Examiner

H. T. Le

Art Unit

1773

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed July 23, 2007.
2. ☒ The allowed claim(s) is/are 1, 3-21 and 23.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>attached</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

/H. T. Le/ H. (Holly) T. Le
Primary Examiner
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EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. Authorization for this examiner's amendment was given in a telephone interview with Applicant's Representative, Michael Dobbs, on September 24, 2007.

3. The application has been amended as follows:

Claim 1, has been rewritten as follows:

- 1. An actuator comprising:
 - at least one electrolyte;
 - at least two electric conducting electrodes separated by said at least one electrolyte;
 - at least one electrode of said electric conducting electrodes providing an electromechanical response upon application of an electronic voltage between said at least two electric conducting electrodes; and
 - at least one electrode of said electric conducting electrodes comprising a carbon nanotube-polymer composite doped with a metal. --

Claim 5 has been rewritten as follows:

- 5. An actuator comprising:
 - at least one electrolyte;

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at least two electric conducting electrodes separated by said at least one electrolyte;

at least one electrode of said electric conducting electrodes providing an electromechanical response upon application of an electronic voltage between said at least two electric conducting electrodes; and

at least one electrode of said electric conducting electrodes comprising a carbon nanotube-polymer composite doped with a metal,

wherein the carbon nanotube-polymer composite is prepared by the following method:

preparing a carbon nanotube-polymer solution;

casting the carbon nanotube-polymer solution, forming a carbon nanotube-polymer composite;

drying the carbon nanotube-polymer composite;

doping the carbon nanotube-polymer composite with a metal. --

Claim 11, lines 1-2, "produced by the process" has been deleted;

line 2, after the comma, -- wherein -- has been added.

Claim 12, lines 1-2, "produced by the process" has been deleted;

line 2, after the comma, -- wherein -- has been added.

Claim 13, lines 1-2, "produced by the process" has been deleted;

line 2, after the comma, -- wherein -- has been added.

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Claim 17, line 1, "5" has been changed to -- 1 --;

line 2, after "wherein the", -- carbon nanotube-polymer -- has been added.

Claim 22 has been canceled.

End of Amendment.

REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance:

The Baughman patent teaches an actuator comprising a carbon nanotube but not a metal-doped carbon nanotube-polymer composite as claimed. None of the prior art references, singly or combined, teach or suggest an electrode comprising a metal-doped carbon nanotube-polymer composite in an actuator.

2. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. Other references are cited as art of interest.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to H. T. Le whose telephone number is 571-272-1511.

The examiner can normally be reached on 10:00 a.m. to 6:30 p.m., Mondays to Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on 571-272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/H. Thi Le/
H. (Holly) T. Le
Primary Examiner
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September 24 2007